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ABSTRACT

The document describes the Mountain-Plains career education model and discusses its implications for higher education. The Mountain-Plains Education and Economic Development Program, Inc., is a non-profit corporation chartered by the State of Montana and funded through the National Institute of Education for a five-year cycle of research and development under the designation Career Education Model Four. The model was designed both for specific applicability to a disadvantaged population in a six State target area (Nebraska, the Dakotas, Montana, Wyoming, and Idaho) and for general applicability across the full spectrum of education. The document traces the physical and procedural structure of the model; the underlying premise is that family-oriented career education, offered in a residential setting and implemented through a comprehensive family-human development approach, represents an effective method of improving the employability, standard of living, and life satisfaction of a disadvantaged population. The authors offer statistics indicating the nature and scope of the program's effects to date, and conclude that Montain-Plains could serve as a complete humanistic model for higher education delivery. Program elements seen as applicable to higher education are its family base, its individualizing of instruction, its criterion-referenced testing, its methods of positive reinforcement, and its roots in societal reality and in human development philosophy. (Author/AJ)

MOUNTAIN-PLAINS: THE MEANING OF A MODEL CAREER EDUCATION LEARNING SYSTEM FOR HIGHER EDUCATION*

THE PROBLEM

It is perhaps not an oversimplification to argue that education in America has become a victim of its own compartmentalization. For many years the dominant strategy has been to achieve rapid quantitative expansion of the existing educational system substantially in its old compartmentalized image. It was believed that this would equalize opportunity and generate the skills needed by students to master and contribute to their environment. Measured by enrollment statistics, this expansionist strategy, until recently, has made spectacular gains. Yet as the nation entered the 1970's it found itself in the midst of a deepening educational crisis. Not only a financial crisis, but a crisis of serious maladjustment between inherited compartmentalized educational systems and the demands of a rapidly changing society.

Generally, this compartmentalization may be grouped under three broad headings--keeping in mind that there is some overlap and interaction between them: (1) personal/informal education; (2) academic/formal education, and (3) special education.

By personal/informal education we mean the process by which we all acquire and accumulate knowledge, skills, attitudes, and insights from daily experiences

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* Portions of this paper appeared in: Mountain-Plains: A Program in Family Based Education by Thomas R. Flores, Rowan W. Conrad, and Michael C. Fenenbock. (Ohio State University Center for Vocational Studies, March, 1975).

and exposure to the environment--everything from the example of family and friends to media exposure. Generally, personal education is unorganized and unsystematic, yet it accounts for the great bulk of our total lifetime learning--inc uding that of the highly "educated".

By academic/formal education we mean the highly institutionalized, chronologically graded and hierarchically structured "education system" spanning from the lower primary school to the upper reaches of the university.

By special education we mean any organized, systematic, educational activity carried on outside the framework of the formal system that provides selected learning services to particular subgroups in the population. Defined in this fashion, special education includes, adult literacy programs, occupational skill training accomplished apart from formal institutions, rehabilitation agencies with substantial educational purposes, and various university extension and community programs of instruction in academic subjects or health, nutrition, family planning, and the like.

The propriety of this compartmentalized educational situation is not shared by all educators. Indeed, there is growing agreement that, ideally at least, societies should strive to evolve "lifelong learning systems" designed to provide every individual with a flexible and diversified range of useful learning options throughout his/her lifetime. Any such system obviously would have to synthesize many elements of personal/informal, academic/formal, and special education. The need is to visualize the various educational activities as potential components of a coherent and flexible overall learning system that

must be steadily strengthened, diversified and linked more closely to the needs and processes of educational development. What is required is an organizing principle. Mountain-Plains offers such a principle. .. combines significant features of all three compartmentalized segments of education in an operating model which has broad implications for the wide spectrum of education precisely because it has been able to synthesize these elements successfully.

At Mountain-Plains, educational development is equated with the far-reaching development of personal, social, and economic structures as well as institutions, relationships, and processes. Mountain-Plains, then, is a model which allows the educator to organize educational development not simply in the narrow sense of content mastery of a particular complexity, but as balanced personal, social, and career development.

MODEL DESCRIPTION

The Mountain-Plains Education & Economic Development Program, Inc., is a non-profit corporation chartered by the state of Montana and funded through the National Institute of Education for a five year cycle of research and development under the designation "Career Education Model IV".

The model was designed both for specific applicability to a disadvantaged population and to test a model with general applicability across the full spectrum of education. This section will trace the physical and procedural structure of the model to enable the reader to place key operating concepts in their proper context.

The population Mountain-Plains deals with is defined as disadvantaged. The main selection criteria for program entry are un/underemployment constitution of a family unit, and current residence in the region (Nebraska, the Dakotas, Montana, Wyoming and Idaho) served by the program.

The basic premise underlying the model is that family-oriented career education, offered in a residential setting, and implemented through a comprehensive family-human development approach, represents an effective method of improving the employability, standard of living, and life satisfaction of a disadvantaged population.

Mountain-Plains' objective is to enable departing students to experience career success and life satisfaction. This is accomplished through comprehensive programs to increase social and interpersonal skills, career sophistication, specific occupational skills, math and reading levels as required by individual career fields, health and consumer skills, and personal strength. In other words, Mountain-Plains' goal is accomplished through a planned integration of personal/informal, academic/formal, and special education.

At Mountain-Plains the Occupational Preparation Program stresses the mastery of identified essential competencies for entry level positions in selected career areas. Currently available career clusters include Building Trades and Services; Mobility and Transportation; Tourism and Marketing; and Office Education. There are approximately fifty individual careers within these clusters for which occupational preparation is available.

In addition to occupational preparation, Mountain-Plains provides a variety of comprehensive support programs and services including:

1. A Foundation Education program consisting of curriculum in math skills and communication skills. Student completion levels in Foundation Education are determined by, and tailored to fit, the specific career choice each student makes.

2. A comprehensive Career Guidance program which is required for both adults, as well as a Career Development program which features "World of Work" simulation.

3. Family and individual Counseling. Additionally, Counseling is available for older children based on need.

4. A Family Core Curriculum designed to provide both the head of household and the spouse with home management, health, consumer education, parenting, community participation, and leisure time skills.

5. Basic medical, dental, and optical care through contracted services.

6. Financial support of the family while in the program.

7. A developmental child care program for preschool age children.

8. Full placement services.

9. Supportive follow-on during, and on occasion following, placement.

Within this overall framework, the program demonstrates a number of unique qualities which should be of interest to all educators. These qualities are unique, not in terms of any one single item being "new", but rather in terms of all of these components being together in one synthesized "learning system".

KEY CONCEPTS

Family Based: Mountain-Plains places a unique emphasis on the family. In dealing with the disadvantaged, the problem of achieving and maintaining gains is made difficult when the emphasis revolves around only one member of a

family. The disadvantaged individual who is placed in an educational environment, introduced to personal success and change, and subsequently returned to a family/interpersonal environment that is unchanged, is likely to show a high failure rate as regards both life satisfaction and employability. As life satisfaction and employability are Mountain-Plains' stated goals, and those of education/manpower/poverty programs generally, the family approach is felt to be a program design essential.

Individualized Instruction: At Mountain-Plains, instruction is individualized/independent. When career goals are chosen in Career Guidance, pretest scores are used to develop educational plans which allow each individual to enter an instructional area at his/her own level. The student then progresses at his/her own rate in order to acquire the skills needed to succeed in a chosen career.[1] Likewise, the student chooses, directly or indirectly, programs to assist his/her personal and family development. As a consequence, Mountain-Plains' students have basic control over their own education--a desirable end at any educational level and an absolute essential for adult education.

Criterion-Referenced Testing: Mountain-Plains uses only criterion referenced classroom testing. No attainment testing is normative. No grade system is in use. The student either validates a particular skill or repeats that portion of the curriculum. Not only does this allow Mountain-Plains to state with some certainty what a completing student can do, but it also allows a student who

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[1]And/or skills which are of personal value to the student.

arrives with a high degree of ability, experience, or intelligence, to negotiate the program in as little as four months, whereas other students may take a year to complete the same essentials. Additionally, the entire Mountain-Plains system utilizes positive reinforcement--the student either experiences success or repeats the curriculum until he/she experiences success. Testing and success come at very short increments and are particularly helpful in improving the low self-confidence levels that typify the target population. In other words, Mountain-Plains elicits and reinforces success.

Human Development Philosophy: Mountain-Plains focuses its educational programs and procedures around the idea of developmental education. Mountains-Plains recognizes, as Don Hoyt[2] puts it, that "people are not well rounded but rather naturally lumpy". Rather than "rounding" people, Mountain-Plains assists students in discovering and developing their most positively prominent lumps.

This developmental approach minimizes the categorization of students as "A" and "F" students, or even, as "good" and "bad" students. Instead, Mountain-Plains deals with individuals and their human strengths and weaknesses by involving both student and educator as partners in the overall learning process.

Keyed to Societal Reality: Each occupational area offered for instruction at Mountain-Plains is derived from job market projections in the six-state area.

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[2]Donald P. Hoyt, "The Impact of Student Personnel Work on Student Development", NASPA Journal (January, 1968), pp. 269-75.

This procedure avoids educating students for careers where employment is unavailable. Further, in place of standard textbook education, each career field at Mountain-Plains has been analyzed, and all classroom subjects and attainment levels are both career specific and relevant. Career preparation is based on a set of specific performance objectives that Mountain-Plains identifies as required for mastery of essentials for entry into and progression through a chosen career field. In addition, affective development is focused around specific personality dimensions which are known correlates of effective personal, family, and career functioning.

Positive Reinforcement: Much of the student environment is under Mountain-Plains control. Mountain-Plains rents the housing and controls payment of the scholarship/stipend. The payment method is a vital elemer'. Students receive up to $85 a week for their participation, but the stipend is not paid gratis. Students receive time cards--"real world" simulation--that are stamped in various classes and each student is paid only for actual hours of attendance.

Rather than prescribe and/or require certain program essentials, Mountain-Plains uses a completion reward system as positive reinforcement. If a student chooses not to attend, or fails to validate certain program components, it costs him/her money when he/she exits the program. Normally, all students receive a completion reward based on the percentage of the program they complete plus pay for any unused vacation/sick time. This completion reward shrinks with every prescribed area the student fails to complete.

TARGET POPULATION

Selection Criteria: The program's target population includes rural residents of the six states which the program serves. Families of two or more members with at least one adult are eligible for program participation. Selection of student families is accomplished through the application of a number of selection criteria. Inclusive selection criteria require that the family be unemployed or underemployed and with insufficient salable skills. Exclusive criteria disqualify illiterates, those possessing a severe medical disability, and the college educated/educable. In each case other institutions are available to deal with them in a more beneficial fashion than Mountain-Plains could hope to without incurring needless duplication costs.

Mountain-Plains, then, focuses on the unattended middle. The program's students range from those who may have been in touch with (but whose needs cannot be fully met by) traditional rehabilitation programs, to those who may have been in touch with public post-secondary institutions but who, for personal, financial or literacy reasons, could not successfully negotiate these institutions. This unattended middle is characterized by being educable but presently unskilled or underskilled, by possessing a poor self-concept or poor work habits, and by having no means of access to currently available educational alternatives.

Characteristics of the Mountain-Plains Population: The average Mountain-Plains student dropped out of school in the 11th grade, reads at a 10th grade level, and does math at an 8th grade level. Only a quarter of the entering

students have had any formal institutional vocational training and, for those that did, the training was minimal. In spite of having attained junior high school levels in math and English skills--levels which have been identified as the only differentiating variables in attribution of adult success to formal education variables[3]--over 60% of the population entering Mountain-Plains qualify as poverty families as defined by the Office of Economic Opportunity.

On psychological tests, average Mountain-Plains students score a standard deviation below norm on such known correlates of successful social, vocational, and family functioning as inner directedness, time competence, and self-concept. On psychological tests recording clinical variables, Mountain-Plains students score as more "neurotic" than the general population.

EFFECTS TO DATE

While a detailed reporting of Mountair. Plains' research findings is clearly beyond the scope of this paper, some current statistics should indicate the nature and scope of effects to date.[4]

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[3]Whereas the American College Testing Service finds, in a 1974 report, argued that there is no correlation between academic achievement and adult accomplishment, Broffenbrenner in his keynote speech to the American College Personnel Association/National Association of Women Deans, Counselors and Administrators National Conference in Cleveland (1973), reviewed the research by level and qualified the (preliminary) ACT finding as noted in the text.

[4]Formative evaluation is also extensively pursued for all program components. Details are beyond the scope of this paper.

There is strong evidence that Mountain-Plains is cost beneficial enhances personal development, increases job satisfaction, and enables those who were previously problem employees to measure above average in their contributions to employment situations.[5]

Cost: Seventy-five percent of the student families participating in the program in the calendar year 1974 were classified as completers. It currently costs an average of $12,000 to educate a family at Mountain-Plains.

An external analysis contracted by Mountain-Plains[6] concludes that the program has a dollar payback period (5.4 years) well within that assumed by economists to indicate a favorable cost/benefit ratio. This analysis focuses entirely upon income increase and in no way attempts to guage the value of such program goals as the benefits of personal development or life satisfaction. In other words, third party studies, using the strictest criteria, have found Mountain-Plains to have both a sound financial reporting base and a favorable cost/benefit ratio.

Results: Questions most frequently asked concerning Mountain-Plains' effects are: Do Mountain-Plains students show signs of positive personal development and life satisfaction subsequent to program treatment? How many Mountain-Plains students are employed after leaving the program? Has income significantly improved? What type of employees do they make? Are they satisfied with their work?

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[5]By the Fall of 1976, the full body of comprehensive research evidence and conclusions will be on file with the National Institute of Education.

[6]Larry Blair and Steven Seninger, "Report of Benefit-Cost Analysis of the Mountain-Plains Program", Vol. I., Propos I FY75 - FY76 Career Education Model IV (Glasgow: Mountain-Plains Press, July 1, 1974), pp. 31-41.

Program studies indicate that Mountain-Plains students do make strong gains in such core personal dimensions as the acceptance of self and others; relying more upon their own judgment; focusing more on the task at hand, and increasing their ability to enjoy genuine interpersonal relationships.[7] Three weeks post-program, 89% of completing heads of household are found to be employed, versus 45% prior to entering the program. The income gain for completing students at the three week period averages $107 per month for the head of household. Preliminary data on family income at six months post-exit indicates an even more favorable gain.[8] Additionally, former Mountain-Plains students rank at the all worker instrument norm for work satisfaction as measured by the Job Descriptive Index,[9] and above the all worker norms on satisfactoriness as rated by employers on the Minnesota Satisfactoriness Scales.[10]

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[7]Rowan W. Conrad and Herbert A. Schwager, Impact of Group Counseling on Self and Other Acceptance and Persistence with Rural Disadvantaged Student Families (Glasgow: Mountain-Plains Press, June, 1974), Passim. Also see: Rowan W. Conrad and Alan C. Mayotte, Effects of a Group Counseling Model on Self-Concept and Related Variables with Adult Members of Disadvantaged Families (Glasgow: Mountain-Plains Press, September, 1974), Passim.

[8]Preliminary data from special indepth follow-up studies conducted an average of ten months post exit. For study description see: Rowan W. Conrad, David A. Coyle, and Douglas Myers, In-Depth Study of Exited Families: A Summary of the Research Design (Glasgow: Mountain-Plains Press, November, 1974), Passim. Also see: Rowan W. Conrad, David A. Coyle, and Douglas D. Myers, Work and Income: A Follow-up of Disadvantaged Students Who Attended Career Education Model IV (Glasgow: Mountain-Plains Press, March, 1975), Passim.

[9]P.C. Smith, et.al., The Measurement of Satisfaction in Work and Retirement (Chicago: Rand McNalley Co., 1969), Passim.

[10]D.L. Gibson, et.al., "Minnesota Studies in Vocational Rehabilitation", XXVIII. Manual for the Minnesota Satisfactoriness Scales (Minneapolis: Industrial Relations Center, University of Minnesota, 1970), Passim.

CONCLUSION

In a general sense, as a model educational delivery system, Mountain-Plains reasserts the unity of education and moves away from attempts to categorize and compartmentalize education. Specifically, it is an effective source of educational services for a previously overlooked segment of the disadvantaged population.

Mountain-Plains is both integrative and innovative. Integrative, in that the program brings together, in one comprehensive scheme, a number of components in use elsewhere. Innovative, in that being developmental and pragmatic, the program adopted a set of unique approaches.

Integrative: Mountain-Plains has adapted for its own use, program elements developed by institutions of various types and at different levels. For instance:

1. Health, community, child care, and some vocational guidance components at Mountain-Plains most resemble those of established poverty/rehabilitation programs.
2. Foundation Education is a traditional secondary school function.
3. Specific occupational training is a usual vocational education function.
4. Personal developmental counseling of the Mountain-Plains type is normally only available in colleges and universities.
5. Individual tailoring of study plans is usual only in university graduate education.

Innovative: Mountain-Plains has developed, in response to its own needs, certain program elements which are totally unique. For instance:

1. Extensive Career Guidance and sophistication both as program elements and as a prelude to career choice and study.

2. Emphasizing the relevant as opposed to the traditional in curriculum.
3. Scholarship payment system.
4. Family focus.
5. Integration of cognitive, affective, and psychomotor development.
6. Total support for all students including moving and employment interview expenses.

Applicability to Higher Education: Mountain-Plains, with varying types of content, could serve as a complete humanistic model for higher education delivery. Educators, particularly those who support humanistic/liberal arts education have voiced fear that the current trend toward career and vocational/applied education will depersonalize or dehumanize education in general and higher education in particular.

Nevertheless, many would argue that since the adaption of the German (as opposed to the Oxford British) model for higher education, American Higher Education has been depersonalized. In todays universities (and yes, even in the "liberal arts programs") professors lecture to classes (an abstract element having no concrete reality) rather than to students (real existing individuals). In other words, subjects are taught rather than students. Content and technology are the focus while process and personality are rarely considered. Even the social sciences are taught in the academic abstract as subjects rather than personally in ways that assist students with their personal/personality development. Higher education provides training in subjects, but training which does not translate into employment skills upon exit from the system.

Mountain-Plains, on the other hand, invests content learning in technology--in curriculum. Instructors never teach curriculum, never teach subjects, never lecture. Instructors teach students by responding to specific inquiries as the student negotiates the curricular content. In short, skills taught by instructors in the area of content/technology correspond to those that are rewardable by society in terms of available employment.

But what of the social sciences and the humanities? Mountain-Plains introduces students to the liberal arts world by the process of administering technological learning. This learning includes "reading, writing, and arithmetic" but does not attempt to set student values by requiring they read material that others have labeled as "important" material that "should" be read. Students are encouraged to read, and evidence indicates that significantly more students subscribe to newspapers and magazines following Mountain-Plains participation than preceeding attendance (no data on book reading is available). What to read is left to student preference; although this is certain to be influenced by teachers but in the context of interpersonal sharing rather than as an abstract requirement.

Social Science is taught personally. Both career and work sophistication are explored as they relate to student interest, ability, and values. Human relationships are explored in the context of employer/employee conflicts, and job interviews. Personal strengths are explored and developed in developmental personal counseling as are educational values and the meaning of "an education" as perceived by the student. Life skills such as health care,

buying, and budgeting are taught in a hybrid curricular personal mode as are parenting skills. Fully half of the total student contact staff at Mountain-Plains is engaged in personalized learner centered content instruction; while the other half is involved with assisting students in personal, social and career development.

Students negotiate individual educational plans for their personal and career development preparation. This integrates all aspects of education. The plaguing problem of compartmentalized learning is avoided, career skills are imparted, personal development takes place, and completing students have the necessary foundation to pursue further education or to enter the labor market with a salable skill. Furthermore, the understanding of psychology and sociology is not a mere academic abstraction, but rather a felt process understanding that enhances personal development.[11]

Imagine, for a moment, Mountain-Plains as a liberal arts college. The entering student would spend his first quarter exploring his/her interests, abilities, and values. Concurrently he/she might sharpen a variety of life skills that the vast majority must employ--buying, budgeting, health care, or parenting. Such options could involve either personalized instruction with curriculum, or experiential learning via work in a hospital, day care center, or consumer agency.

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[11]Tagore reports the case of a student who was asked to define the English word "river"; which he did perfectly. He could not, however, give an example; although the river Ganges flowed past the window before which he stood. In talking with students of psychology and sociology it often seems that the definitions are there, but that the discipline remains a foreign language untied to the concretes of life.

Second quarter the student and a knowledgeable advisor whose full time job was advising and assisting students would develop a plan of educational curricula and non-curricular experience that would eventually graduate the student with the personal and career skills needed for success in a chosen career as well as those that a student wished to pursue for purely personal reasons.

Subsequently, the student would set about to negotiate the curriculum and seek out the experience(s) included in the plan--thereby obtaining the negotiated skills and competencies. The student would experience daily contact with the instructors administering curriculum, would regularly be in contact with the supervisors of experiences included (e.g. work or "public service" experience) in the plan, and would regularly sit down with the advisor to review progress and adjust the plan as appropriate.

Although the above scenario is arranged by quarters, no such time frame is needed. Actually, when the individual student completes exploration he/she will make a choice. After these choices are made he/she will develop a plan with an advisor. When the plan has been completed he/she will pursue it in consultation with an advisor until it is accomplished. After it is accomplished, he/she will graduate. And, when the student graduates he/she will have specific salable vocational skills, understand job getting, holding, and progression, and will have highly developed cultural understandings, intrapersonal facility and interpersonal skills. Some students may acquire a bachelors degree in a year or two, while others may require five or six years. Dropouts should decrease substantially due to: (1) clear relevance of educational pursuits,

(2) comprehensive guidance gearing studies to interests, abilities, and values, and (3) the student no longer having to accommodate learning to a model rate set by an instructor and a quarter/semester system.

Upon nearing completion of the educational plan, the student would begin to work with a thoroughly knowledgeable career placement professional who would assist the student in either securing employment or further education as fits the student's goals. Students would not complete education with a pat on the back and best wishes conferred with a degree. Rather, transition from one level of career activity to another would be viewed as an integral part of institutional responsibility.

In such a system one would be able to meet the needs of both Hunt's[12] level 1-2 learners and his level 3-4 learners by the type of curriculum, career, and learning processes developed in the student plan. Additionally, such a system would accommodate level 1-2 teachers and level 3-4 teachers by each being able to administer the type of curriculum with which they are most comfortable.

Such a system is not implementable overnight. Nevertheless, with some difficulty it could be quickly installed with post secondary vocational-technical schools.

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[12]David E. Hunt, "A Conceptual Level Matching Model for Coordinating Learner Characteristics with Educational Approaches". Interchange, 1: 68-82, Number 3, 1970. Passim.

Adoption in baccalaureate institutions would require further development in both personal and technological areas. Personal/personnel development would include advisor training (although this involves increasing the output of competent career development counselors) and the integration of the student development force with the academic social sciences allowing the 1-2 level individuals from both to focus on content mastery needed in social service careers while the level 3-4 teachers in each group concentrate on developmental personal experiences and seminars to aid and develop personal strengths in the student.

Technologically, Mountain-Plains offers a proven institutional structure that now exists. The content of Mountain-Plains' personal development programs is directly applicable to adult students generally. The process of career guidance and development, career analysis, and structuring of technological learning can be applied to careers to which the college population aspire. The process of developing such skill training/content mastery curriculum can be applied to traditional higher education careers as well.

Nothing new, you say. These utopian ideas have been presented, in various forms before. One thing is new. The institutional structure discussed has been implemented, tested, and proven with adult students. This has been done at the institutional level, not with a special set of students from another institutional environment. Indeed, the power of the approach is such that it has been very effective with "problem" students, many of whom have been casualties of other educational approaches.

Clearly then, much of the uncertainty implicit in previous theoretical proposals for such approaches has been removed, much of the cost of development already absorbed, and processes for remaining development made available. It has taken four years and sixteen million dollars but Mountain-Plains has fulfilled its mission and provided a viable model for adaptation and replication in American Educational Institutions serving adult populations.

REFERENCES CITED

Blair, L. and S. Seninger. "Report of Benefit-Cost Analysis of the Mountain-Plains Program." Proposal FY75-FY76 Career Education Model IV, Vol. 1. Glasgow: Mountain-Plains Press, July 1, 1974.

Conrad, R.; D. Myers; and D. Coyle. Work and Income: A Follow-Up of Disadvantaged Students Who Attended Career Education Model IV. Glasgow: Mountain-Plains Press, 1975 (in press).

Coyle, D.; R. Conrad; and D. Meyers. In-Depth Case Studies of Exited Students: A Summary of the Research Design for Phase I - Preliminary Effects Study. Glasgow: Mountain-Plains Press, November, 1973.

Gibson, D.L.; D.J. Weiss; R.V. Davis; and L.H. Lofquist. "Minnesota Studies in Vocational Rehabilitation." XXVIII. Manual for the Minnesota Satisfactoriness Scales. Minneapolis: Industrial Relations Center, University of Minnesota, 1970.

Hoyt, D. "The Impact of Student Personnel Work on Student Development." NASPA Journal, (January, 1968), pp. 269-75.

Hunt, D.A., "A Conceptual Level Matching Model for Coordinating Learner Characteristics with Educational Approaches." Interchange, 1: 68-82, Number 3, 1970.

Mayotte, A. and R. Conrad. Effects of a Group Counseling Model on Self-Concept and Related Variables with Adult Members of Disadvantaged Families. Glasgow: Mountain-Plains Press, September, 1974.

Schwager, H. and R. Conrad. Impact of Group Counseling on Self and Other Acceptance and Persistence with Rural Disadvantaged Student Families. Glasgow: Mountain-Plains Press, June, 1974.

Smith, P.C.; L.M. Kendall; and C.L. Hulin. The Measurement of Satisfaction in Work and Retirement. Chicago: Rand-McNalley Co., 1969.